Titles of Most Frequently Occurring Classifications of Patents Returned

From A Search of 09639163 on July 12, 2001

18 438/655 (0 OR, 18 XR)
Class 438 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS

438/584 COATING WITH ELECTRICALLY OR THERMALLY CONDUCTIVE MATERIAL
438/597 .To form ohmic contact to semiconductive material
438/652 ..Plural layered electrode or conductor
438/655 ...Silicide

14 438/683 (1 OR, 13 XR)
Class 438 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS

438/584 COATING WITH ELECTRICALLY OR THERMALLY CONDUCTIVE MATERIAL
438/597 .To form ohmic contact to semiconductive material
438/682 ..Silicide
438/683 ...Of refractory group metal (i.e., titanium (Ti), zirconium (Zr), hafnium (Hf), vanadium (V), niobium (Nb), tantalum (Ta), chromium (Cr), molybdenum (Mo), tungsten (W), or alloy thereof)

10 438/592 (2 OR, 8 XR)
Class 438 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS

438/584 COATING WITH ELECTRICALLY OR THERMALLY CONDUCTIVE MATERIAL
438/585 .Insulated gate formation
438/592 ..Possessing plural conductive layers (e.g., polycide)

10 438/664 (0 OR, 10 XR)
Class 438 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS

438/584 COATING WITH ELECTRICALLY OR THERMALLY CONDUCTIVE MATERIAL
438/597 .To form ohmic contact to semiconductive material
438/660 ..Including heat treatment of conductive layer

438/663 ...Rapid thermal anneal
438/664 ....Forming silicide

9 438/586 (6 OR, 3 XR)
Class 438 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS

438/584 COATING WITH ELECTRICALLY OR THERMALLY CONDUCTIVE MATERIAL
438/585 .Insulated gate formation
438/586 ..Combined with formation of ohmic contact to semiconductor region

9 438/649 (5 OR, 4 XR)
Class 438 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS

438/584 COATING WITH ELECTRICALLY OR THERMALLY CONDUCTIVE MATERIAL
438/597 .To form ohmic contact to semiconductive material
438/618 ..Contacting multiple semiconductive regions (i.e., interconnects)
438/642 ...Diverse conductors
438/648 ....Having refractory group metal (i.e., titanium (Ti), zirconium (Zr), hafnium (Hf), vanadium (V), niobium (Nb), tantalum (Ta), chromium (Cr), molybdenum (Mo), tungsten (W), or alloy thereof)
438/649 .....Silicide

9 438/754 (3 OR, 6 XR)
Class 438 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS

438/689 CHEMICAL ETCHING
438/745 .Liquid phase etching
438/754 ..Electrically conductive material (e.g., metal, conductive oxide, etc.)

7 438/682 (2 OR, 5 XR)
Class 438 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS

438/584 COATING WITH ELECTRICALLY OR THERMALLY CONDUCTIVE MATERIAL
438/597 .To form ohmic contact to semiconductive material
438/682 ..Silicide

5 438/301 (0 OR, 5 XR)

Class 438 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS

438/142 MAKING FIELD EFFECT DEVICE HAVING PAIR OF ACTIVE REGIONS SEPARATED BY GATE STRUCTURE BY FORMATION OR ALTERATION OF SEMICONDUCTIVE ACTIVE REGIONS

438/197 .Having insulated gate (e.g., IGFET, MISFET, MOSFET, etc.)

438/299 ..Self-aligned

438/301 ...Source or drain doping

5 438/303 (2 OR, 3 XR)

Class 438 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS

438/142 MAKING FIELD EFFECT DEVICE HAVING PAIR OF ACTIVE REGIONS SEPARATED BY GATE STRUCTURE BY FORMATION OR ALTERATION OF SEMICONDUCTIVE ACTIVE REGIONS

438/197 .Having insulated gate (e.g., IGFET, MISFET, MOSFET, etc.)

438/299 ..Self-aligned

438/301 ...Source or drain doping

438/303 ....Utilizing gate sidewall structure

4 148/266 (3 OR, 1 XR)

Class 148 : METAL TREATMENT

148/95 PROCESS OF MODIFYING OR MAINTAINING INTERNAL PHYSICAL STRUCTURE (I.E., MICROSTRUCTURE) OR CHEMICAL PROPERTIES OF METAL, PROCESS OF REACTIVE COATING OF METAL AND PROCESS OF CHEMICAL-HEAT REMOVING (E.G., FLAME-CUTTING, ETC.) OR BURNING OF METAL

148/240 .Processes of coating utilizing a reactive composition which reacts with metal substrate or composition therefore

148/243 ..Liquid reactive coating composition utilized

148/264 ...Contains an atom of chromium

148/266 ....Contains an atom of sulfur, selenium or tellurium

4 148/267 (0 OR, 4 XR)

Class 148 : METAL TREATMENT

148/95 PROCESS OF MODIFYING OR MAINTAINING INTERNAL PHYSICAL STRUCTURE (I.E., MICROSTRUCTURE) OR CHEMICAL PROPERTIES OF METAL, PROCESS OF REACTIVE COATING OF METAL AND PROCESS OF CHEMICAL-HEAT REMOVING (E.G., FLAME-CUTTING, ETC.) OR BURNING OF METAL

148/240 .Processes of coating utilizing a reactive composition which reacts with metal substrate or composition therefore

148/243 ..Liquid reactive coating composition utilized

148/264 ...Contains an atom of chromium

148/267 ....Contains trivalent chromium ion or reducing agent or an organic additive

4 252/79.4 (1 OR, 3 XR)
Class 252 : COMPOSITIONS
252/79.1 ETCHING OR BRIGHTENING COMPOSITIONS
252/79.2 .Inorganic acid containing
252/79.4 ..With organic material

4 438/584 (1 OR, 3 XR)
Class 438 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS

438/584 COATING WITH ELECTRICALLY OR THERMALLY CONDUCTIVE MATERIAL

4 438/685 (1 OR, 3 XR)
Class 438 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS

438/584 COATING WITH ELECTRICALLY OR THERMALLY CONDUCTIVE MATERIAL
438/597 .To form ohmic contact to semiconductive material
438/685 ..Refractory group metal (i.e., titanium (Ti), zirconium (Zr), hafnium (Hf), vanadium (V), niobium (Nb), tantalum (Ta), chromium (Cr), molybdenum (Mo), tungsten (W), or alloy thereof)

3 134/2 (0 OR, 3 XR)
Class 134 : CLEANING AND LIQUID CONTACT WITH SOLIDS
134/2 .For metallic, siliceous, or calcareous

basework, including chemical bleaching, oxidation or reduction

3 148/247 (2 OR, 1 XR)
Class 148 : METAL TREATMENT
148/95 PROCESS OF MODIFYING OR MAINTAINING INTERNAL PHYSICAL STRUCTURE (I.E., MICROSTRUCTURE) OR CHEMICAL PROPERTIES OF METAL, PROCESS OF REACTIVE COATING OF METAL AND PROCESS OF CHEMICAL-HEAT REMOVING (E.G., FLAME-CUTTING, ETC.) OR BURNING OF METAL
148/240 .Processes of coating utilizing a reactive composition which reacts with metal substrate or composition therefore
148/243 ..Liquid reactive coating composition utilized
148/247 ...Contains an atom of hafnium, titanium or zirconium (excludes activating composition)

3 204/192.15 (1 OR, 2 XR)
Class 204 : CHEMISTRY: ELECTRICAL AND WAVE ENERGY
204/192.1 .Coating, forming or etching by sputtering
204/192.12 ..Glow discharge sputter deposition (e.g., cathode sputtering, etc.)
204/192.15 ...Specified deposition material or use

3 204/192.16 (1 OR, 2 XR)
Class 204 : CHEMISTRY: ELECTRICAL AND WAVE ENERGY
204/192.1 .Coating, forming or etching by sputtering
204/192.12 ..Glow discharge sputter deposition (e.g., cathode sputtering, etc.)
204/192.15 ...Specified deposition material or use
204/192.16 ....Wear or abrasion resistant

3 204/192.2 (1 OR, 2 XR)
Class 204 : CHEMISTRY: ELECTRICAL AND WAVE ENERGY
204/192.1 .Coating, forming or etching by sputtering
204/192.12 ..Glow discharge sputter deposition (e.g., cathode sputtering, etc.)
204/192.15 ...Specified deposition material or use
204/192.2 ....Ferromagnetic

3 252/79.1 (2 OR, 1 XR)

Class 252 : COMPOSITIONS
252/79.1 ETCHING OR BRIGHTENING COMPOSITIONS

3 252/79.2 (0 OR, 3 XR)
Class 252 : COMPOSITIONS
252/79.1 ETCHING OR BRIGHTENING COMPOSITIONS
252/79.2 .Inorganic acid containing

3 427/577 (0 OR, 3 XR)
Class 427 : COATING PROCESSES
427/457 DIRECT APPLICATION OF ELECTRICAL, MAGNETIC, WAVE, OR PARTICULATE ENERGY
427/569 .Plasma (e.g., corona, glow discharge, cold plasma, etc.)
427/577 ..Inorganic carbon containing coating material not as steel (e.g., carbide, etc.)

3 438/305 (3 OR, 0 XR)
Class 438 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS

438/142 MAKING FIELD EFFECT DEVICE HAVING PAIR OF ACTIVE REGIONS SEPARATED BY GATE STRUCTURE BY FORMATION OR ALTERATION OF SEMICONDUCTIVE ACTIVE REGIONS
438/197 .Having insulated gate (e.g., IGFET, MISFET, MOSFET, etc.)
438/299 ..Self-aligned
438/301 ...Source or drain doping
438/303 ....Utilizing gate sidewall structure
438/305 .....Plural doping steps

3 438/533 (1 OR, 2 XR)
Class 438 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS

438/510 INTRODUCTION OF CONDUCTIVITY MODIFYING DOPANT INTO SEMICONDUCTIVE MATERIAL
438/514 .Ion implantation of dopant into semiconductor region
438/533 ..And contact formation (i.e., metallization)

3 438/656 (1 OR, 2 XR)
Class 438 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS

438/584 COATING WITH ELECTRICALLY OR THERMALLY CONDUCTIVE MATERIAL

438/597 .To form ohmic contact to semiconductive material
438/652 ..Plural layered electrode or conductor
438/656 ...Having refractory group metal (i.e., titanium (Ti), zirconium (Zr), hafnium (Hf), vanadium (V), niobium (Nb), tantalum (Ta), chromium (Cr), molybdenum (Mo), tungsten (W), or alloy thereof)

3 438/681 (0 OR, 3 XR)
Class 438 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS

438/584 COATING WITH ELECTRICALLY OR THERMALLY CONDUCTIVE MATERIAL
438/597 .To form ohmic contact to semiconductive material
438/680 ..Utilizing chemical vapor deposition (i.e., CVD)
438/681 ...Of organo-metallic precursor (i.e., MOCVD)

3 438/692 (1 OR, 2 XR)
Class 438 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS

438/689 CHEMICAL ETCHING
438/690 .Combined with the removal of material by nonchemical means (e.g., ablating, abrading, etc.)
438/691 ..Combined mechanical and chemical material removal
438/692 ...Simultaneous (e.g., chemical-mechanical polishing, etc.)

3 438/693 (0 OR, 3 XR)
Class 438 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS

438/689 CHEMICAL ETCHING
438/690 .Combined with the removal of material by nonchemical means (e.g., ablating, abrading, etc.)
438/691 ..Combined mechanical and chemical material removal
438/692 ...Simultaneous (e.g., chemical-mechanical polishing, etc.)
438/693 ....Utilizing particulate abradant

3 438/755 (1 OR, 2 XR)

Class 438 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS

438/689 CHEMICAL ETCHING
438/745 .Liquid phase etching
438/754 ..Electrically conductive material (e.g., metal, conductive oxide, etc.)
438/755 ...Silicide

2 29/25.01 (0 OR, 2 XR)
Class 029 : METAL WORKING
29/25.01 BARRIER LAYER OR SEMICONDUCTOR DEVICE MAKING

2 134/3 (1 OR, 1 XR)
Class 134 : CLEANING AND LIQUID CONTACT WITH SOLIDS
134/2 .For metallic, siliceous, or calcareous basework, including chemical bleaching, oxidation or reduction
134/3 ..Including acidic agent

2 148/273 (0 OR, 2 XR)
Class 148 : METAL TREATMENT
148/95 PROCESS OF MODIFYING OR MAINTAINING INTERNAL PHYSICAL STRUCTURE (I.E., MICROSTRUCTURE) OR CHEMICAL PROPERTIES OF METAL, PROCESS OF REACTIVE COATING OF METAL AND PROCESS OF CHEMICAL-HEAT REMOVING (E.G., FLAME-CUTTING, ETC.) OR BURNING OF METAL
148/240 .Processes of coating utilizing a reactive composition which reacts with metal substrate or composition therefore
148/243 ..Liquid reactive coating composition utilized
148/273 ...Contains an atom of arsenic or metal atom other than alkali metal

2 148/277 (0 OR, 2 XR)
Class 148 : METAL TREATMENT
148/95 PROCESS OF MODIFYING OR MAINTAINING INTERNAL PHYSICAL STRUCTURE (I.E., MICROSTRUCTURE) OR CHEMICAL PROPERTIES OF METAL, PROCESS OF REACTIVE COATING OF METAL AND PROCESS OF CHEMICAL-HEAT REMOVING (E.G., FLAME-CUTTING,

ETC.) OR BURNING OF METAL
148/240 .Processes of coating utilizing a reactive composition which reacts with metal substrate or composition therefore
148/277 ..Metal oxide formed after applied coating

2 156/345 (0 OR, 2 XR)
Class 156 : ADHESIVE BONDING AND MISCELLANEOUS CHEMICAL MANUFACTURE
156/345 DIFFERENTIAL ETCHING APPARATUS

2 257/384 (0 OR, 2 XR)
Class 257 : ACTIVE SOLID-STATE DEVICES
257/213 FIELD EFFECT DEVICE
257/288 .Having insulated electrode (e.g., MOSFET, MOS diode)
257/368 ..Insulated gate field effect transistor in integrated circuit
257/382 ...With contact to source or drain region of refractory material (e.g., polysilicon, tungsten, or silicide)
257/384 ....Including silicide

2 257/751 (2 OR, 0 XR)
Class 257 : ACTIVE SOLID-STATE DEVICES
257/734 COMBINED WITH ELECTRICAL CONTACT OR LEAD
257/741 .Of specified material other than unalloyed aluminum
257/750 ..Layered
257/751 ...At least one layer forms a diffusion barrier

2 257/764 (0 OR, 2 XR)
Class 257 : ACTIVE SOLID-STATE DEVICES
257/734 COMBINED WITH ELECTRICAL CONTACT OR LEAD
257/741 .Of specified material other than unalloyed aluminum
257/750 ..Layered
257/763 ...At least one layer of molybdenum, titanium, or tungsten
257/764 ....Alloy containing molybdenum, titanium, or tungsten

2 257/915 (0 OR, 2 XR)
Class 257 : ACTIVE SOLID-STATE DEVICES

257/915 WITH TITANIUM NITRIDE PORTION OR REGION

2 427/250 (0 OR, 2 XR)
Class 427 : COATING PROCESSES
427/248.1 COATING BY VAPOR, GAS, OR SMOKE
427/250 .Metal coating

2 427/255.7 (0 OR, 2 XR)
Class 427 : COATING PROCESSES
427/248.1 COATING BY VAPOR, GAS, OR SMOKE
427/255.7 .Plural coatings applied by vapor, gas, or smoke

2 427/309 (0 OR, 2 XR)
Class 427 : COATING PROCESSES
427/299 WITH PRETREATMENT OF THE BASE
427/307 .Etching, swelling, or dissolving out part of the base
427/309 ..Inorganic base

2 427/576 (1 OR, 1 XR)
Class 427 : COATING PROCESSES
427/457 DIRECT APPLICATION OF ELECTRICAL, MAGNETIC, WAVE, OR PARTICULATE ENERGY
427/569 .Plasma (e.g., corona, glow discharge, cold plasma, etc.)
427/576 ..Metal, metal alloy, or metal oxide coating

2 428/694TC (0 OR, 2 XR)
Class 428 : STOCK MATERIAL OR MISCELLANEOUS ARTICLES
428/411.1 COMPOSITE (NONSTRUCTURAL LAMINATE)
428/688 .Of inorganic material
428/689 ..Metal-compound-containing layer
428/692 ...Defined magnetic layer
428/694R ....Dynamic recording medium
428/694T .....Metal thin film magnetic layer
428/694TP ......Topcoat, or protective overlayer
428/694TC ....Carbon

2 438/398 (1 OR, 1 XR)
Class 438 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS

438/381 MAKING PASSIVE DEVICE (E.G., RESISTOR, CAPACITOR, ETC.)
438/396 .Stacked capacitor
438/398 ..Including texturizing storage node layer

2 438/648 (1 OR, 1 XR)

Class 438 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS

438/584 COATING WITH ELECTRICALLY OR THERMALLY CONDUCTIVE MATERIAL
438/597 .To form ohmic contact to semiconductive material
438/618 ..Contacting multiple semiconductive regions (i.e., interconnects)
438/642 ...Diverse conductors
438/648 ....Having refractory group metal (i.e., titanium (Ti), zirconium (Zr), hafnium (Hf), vanadium (V), niobium (Nb), tantalum (Ta), chromium (Cr), molybdenum (Mo), tungsten (W), or alloy thereof)

2 438/659 (0 OR, 2 XR)
Class 438 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS

438/584 COATING WITH ELECTRICALLY OR THERMALLY CONDUCTIVE MATERIAL
438/597 .To form ohmic contact to semiconductive material
438/658 ..Altering composition of conductor
438/659 ...Implantation of ion into conductor

2 438/660 (0 OR, 2 XR)
Class 438 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS

438/584 COATING WITH ELECTRICALLY OR THERMALLY CONDUCTIVE MATERIAL
438/597 .To form ohmic contact to semiconductive material
438/660 ..Including heat treatment of conductive layer

2 438/688 (0 OR, 2 XR)
Class 438 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS

438/584 COATING WITH ELECTRICALLY OR THERMALLY CONDUCTIVE MATERIAL
438/597 .To form ohmic contact to semiconductive material
438/688 ..Aluminum or aluminum alloy conductor

2 438/721 (0 OR, 2 XR)
Class 438 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS

438/689 CHEMICAL ETCHING
438/706 .Vapor phase etching (i.e., dry etching)
438/707 ..Utilizing electromagnetic or wave energy
438/710 ...By creating electric field (e.g., plasma, glow discharge, etc.)
438/720 ....Electrically conductive material (e.g., metal, conductive oxide, etc.)
438/721 .....Silicide

2 438/902 (0 OR, 2 XR)
Class 438 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS

438/902 CAPPING LAYER

2 451/41 (2 OR, 0 XR)
Class 451 : ABRADING
451/28 ABRADING PROCESS
451/41 .Glass or stone abrading

2 525/240 (2 OR, 0 XR)
Class 525 : SYNTHETIC RESINS OR NATURAL RUBBERS -- PART OF THE CLASS 520 SERIES
525/50 .MIXING OF TWO OR MORE SOLID POLYMERS; MIXING OF SOLID POLYMER OR SICP WITH SICP OR SP
FI; MIXING OF SICP
WITH AN ETHYLENIC AGENT; MIXING OF SOLID
POLYMER WITH A
CHEMICAL TREATING OR ETHYLENIC AGENT; OR
PROCESSES OF
FORMING OR REACTING; OR THE RESULTANT PR
ODUCT OF ANY OF THE
ABOVE OPERATIONS
525/55 ..At least one solid polymer derived from ethylenic reactants only
525/191 ...Polymer mixture of two or more solid polymers derived from ethylenically unsatu
rated reactants
only; or mixtures of said polymer mixture
with a chemical
treating agent; or products or processes o
f preparing any
of the above mixtures
525/240 ....Solid polymer derived from ethylene or propylene